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| 09/516,983      | 03/01/2000  | Charles A. Eldering  | 8887.3002CNT        | 3153             |

27832 7590 10/19/2005

TECHNOLOGY, PATENTS AND LICENSING, INC./PRIME  
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| EXAMINER |
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SHELEHEDA, JAMES R

|          |              |
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| ART UNIT | PAPER NUMBER |
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2617

DATE MAILED: 10/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/516,983

Applicant(s)

ELDERING ET AL.

Examiner

James Sheleheda

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12 September 2005.  
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 102-125 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 102-125 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 9/12/05.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 102-125 are rejected under 35 U.S.C. 103(a) as being unpatentable over Alexander et al. (Alexander) (6,177,931) (of record) in view of Rosser (6,446,261).

As to claim 102, Alexander discloses in a video network (column 28, lines 13-21), a computer implemented method (column 5, lines 21-46) of determining information of a household (column 30, lines 29-32), the method comprising:

(a) monitoring viewer interactions with a multimedia device (column 28, lines 30-52);

(b) processing the viewer interactions to determine viewer interaction data corresponding to the viewer interactions (determining the interaction made the viewer and circumstances surrounding those actions; column 28, lines 30-52);

(d) applying one or more heuristic rules to the viewer interaction data (analysis learning viewer preferences based upon the user data; column 29, lines 14-30 and 56-67 and column 30, lines 1-29), wherein the heuristic rules assign one or more viewer characteristics based on the viewer interaction data (determining preference information about the viewer from the profile data; column 29, lines 56-67, column 31, lines 34-47

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and column 32, lines 24-34). While Alexander disclose (e) inferring information about the household (inferring whether or not the viewer is married and has children; column 30, lines 30-32) based on the one or more assigned viewer characteristics (column 30, lines 17-37), he fails to specifically disclose inferring the number of people in the household.

In an analogous art, Rosser discloses video distribution system (Fig. 1) wherein user interactions are monitored (column 8, lines 4-38) to create a user profile (column 8, lines 4-38) including a prediction of the number of people in a family (actual size of the viewing family; column 8, lines 27-38 and column 16, lines 20-23) for the typical benefit of allowing the targeting of advertisements (column 4, lines 15-41) based upon profile factors, such as family size, without the need for demographic and psycho-graphic databases (column 8, lines 11-38).

It would have been obvious to one of ordinary skill in the art at the time of invention by applicant to modify Alexander's system to include inferring the number of people in the household, as taught by Rosser, for the typical benefit of allowing the targeting of advertisements based upon the number of people in a family.

As to claim 108, Alexander discloses in a video network (column 28, lines 13-21), a computer implemented method (column 5, lines 21-46) of determining information of a household (column 30, lines 29-32), the method comprising:

(a) monitoring viewer interactions with a multimedia device (column 28, lines 30-52), the viewer interactions occurring during one or more interaction sessions (compiled

viewer profile data, column 29, lines 14-21, which is periodically repeated to generate new updated profiles, column 29, lines 22-30);

(b) processing the viewer interactions to determine viewer interaction data (determining the interaction made the viewer and circumstances surrounding those actions; column 28, lines 30-52);

(d) applying one or more heuristic rules to the viewer interaction data (analysis learning viewer preferences based upon the user data; column 29, lines 14-30 and 56-67 and column 30, lines 1-29), wherein the heuristic rules assign a viewer characteristic to each interaction session (determining preference information about the viewer from the current profile data; column 29, lines 56-67, column 31, lines 34-47 and column 32, lines 24-34) based on the viewer interaction data (determining preference information about the viewer from the profile data; column 29, lines 56-67, column 31, lines 34-47 and column 32, lines 24-34). While Alexander disclose (e) inferring information about the household (inferring whether or not the viewer is married and has children; column 30, lines 30-32) based on the one or more assigned viewer characteristics (column 30, lines 17-37), he fails to specifically disclose inferring the number of people in the household.

In an analogous art, Rosser discloses video distribution system (Fig. 1) wherein user interactions are monitored (column 8, lines 4-38) to create a user profile (column 8, lines 4-38) including a prediction of the number of people in a family (actual size of the viewing family; column 8, lines 27-38 and column 16, lines 20-23) for the typical benefit of allowing the targeting of advertisements (column 4, lines 15-41) based upon profile

factors, such as family size, without the need for demographic and psycho-graphic databases (column 8, lines 11-38).

It would have been obvious to one of ordinary skill in the art at the time of invention by applicant to modify Alexander's system to include inferring the number of people in the household, as taught by Rosser, for the typical benefit of allowing the targeting of advertisements based upon the number of people in a family.

As to claim 117, Alexander discloses in a video network (column 28, lines 13-21), a computer implemented method (column 5, lines 21-46) of determining information of a household (column 30, lines 29-32), the method comprising:

(a) monitoring viewer interactions with a multimedia device (column 28, lines 30-52), the viewer interactions occurring during one or more viewing periods (compiled viewer profile data, column 29, lines 14-21, which is periodically repeated to generate new updated profiles, column 29, lines 22-30);

(b) processing the viewer interactions to determine viewer interaction data (determining the interaction made the viewer and circumstances surrounding those actions; column 28, lines 30-52);

(d) applying one or more heuristic rules to the viewer interaction data (analysis learning viewer preferences based upon the user data; column 29, lines 14-30 and 56-67 and column 30, lines 1-29), wherein the heuristic rules assign a viewer characteristic to each viewing period (determining preference information about the viewer from the current profile data; column 29, lines 56-67, column 31, lines 34-47 and column 32,

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lines 24-34) based on the viewer interaction data (determining preference information about the viewer from the profile data; column 29, lines 56-67, column 31, lines 34-47 and column 32, lines 24-34). While Alexander disclose (e) inferring information about the household (inferring whether or not the viewer is married and has children; column 30, lines 30-32) based on the one or more assigned viewer characteristics (column 30, lines 17-37), he fails to specifically disclose inferring the number of people in the household.

In an analogous art, Rosser discloses video distribution system (Fig. 1) wherein user interactions are monitored (column 8, lines 4-38) to create a user profile (column 8, lines 4-38) including a prediction of the number of people in a family (actual size of the viewing family; column 8, lines 27-38 and column 16, lines 20-23) for the typical benefit of allowing the targeting of advertisements (column 4, lines 15-41) based upon profile factors, such as family size, without the need for demographic and psycho-graphic databases (column 8, lines 11-38).

It would have been obvious to one of ordinary skill in the art at the time of invention by applicant to modify Alexander's system to include inferring the number of people in the household, as taught by Rosser, for the typical benefit of allowing the targeting of advertisements based upon the number of people in a family.

As to claims 103, 112 and 121, Alexander and Rosser disclose wherein the heuristic rules are probabilistic in nature (wherein the rules are inherently probabilistic in

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that it is predicting demographic characteristics of the user; see Alexander at column 30, lines 17-37).

As to claim 104, Alexander and Rosser disclose wherein the heuristic rules assign probabilities (wherein the rules are inherently probabilistic in that it is predicting demographic characteristics of the user; see Alexander at column 30, lines 17-37) of a viewer characteristic being associated with a portion of the viewer interaction data (viewer characteristics based upon accumulated user inputs; see Alexander at column 29, lines 31-67 and column 30, lines 17-38).

As to claims 105, 114 and 123, Alexander and Rosser disclose wherein said monitoring includes at least some subset of channel changes (see Alexander at column 28, lines 32-37), volume changes (see Alexander at column 28, lines 46-49), record commands (see Alexander at column 28, lines 44-46) and time of viewer interaction (see Alexander at column 28, lines 32-35).

As to claims 106, 115 and 124, Alexander and Rosser disclose evaluating channel change commands and associated viewing times (see Alexander at column 28, lines 30-35 and column 29, lines 34-36) to group the viewer interaction characteristics (accumulated viewing statistics; see Alexander at column 29, lines 50-55).

As to claims 107, 116 and 125, Alexander and Rosser disclose wherein the viewer interaction data includes at least some subset of channel changes per time period (channel changes gathered since the last analysis; see Alexander at column 28, lines 30-37 and column 29, lines 22-30).

As to claims 109 and 118, Alexander and Rosser disclose processing the viewer interactions for an interaction session (or viewing period) (processing interactions for the current accumulated profile; see Alexander at column 29, lines 14-37) to generate session (or period) interaction data (determining the interaction made the viewer and circumstances surrounding those actions for the most current accumulated session data; see Alexander at column 28, lines 30-52 and column 29, lines 14-37) for each interaction session (or viewing period) (for each update of accumulated data; see Alexander at column 29, lines 22-37).

As to claims 113 and 122, Alexander and Rosser disclose wherein the heuristic rules assign probabilities (wherein the rules are inherently probabilistic in that it is predicting demographic characteristics of the user; see Alexander at column 30, lines 17-37) of an interaction session (or viewing period) being associated with a portion of the viewer interaction data (viewer characteristics based upon accumulated user inputs; see Alexander at column 29, lines 22-67 and column 30, lines 17-38).

As to claims 110 and 119, while Alexander and Rosser disclose wherein said processing includes processing the subscriber interactions for multiple interaction sessions (or viewing periods) (wherein the profile is constantly updated with current session information; see Alexander at column 29, lines 36-43 and lines 23-27) to generate interaction data for the multiple viewing sessions (or viewing periods) (to generate an updated profile containing all of the viewing session information; see Alexander at column 29, lines 22-30), they fail to specifically disclose generating average interaction characteristics.

The examiner takes Official Notice that it is notoriously well known in the art to use an average as representative of a large range of values for the typical benefit of finding a value with the best correlation and reducing the effects of extreme values on a system.

It would have been obvious to one of ordinary skill in the art at the time of invention by applicant to modify Alexander and Rosser's system to include generating average interaction characteristics for the typical benefit of finding a value with the best correlation and reducing the effects of extreme values on a system.

As to claim 111 and 120, Alexander and Rosser disclose wherein wherein the heuristic rules are also applied to the average interaction characteristics (assigning rules to the current stored interactions, see the rejection of claims 110 and 119 above and see Alexander at column 29, lines 34-43 and column 30,

lines 17-37) to assign viewer characteristics (see Alexander at column 29, lines 56-67 and column 30, lines 17-37).

### ***Response to Arguments***

3. Applicant's arguments filed 09/12/05, in regards to heuristic rules have been fully considered but they are not persuasive.

a. On page 10, applicant argues that Alexander's profile is based on "simple statistical analysis and basic viewer profile data" and does not teach or suggest heuristic rules.

In response, as indicated in the previous action, Alexander is operable to "determine" if the "viewer is a fan of a particular team" (see Alexander at column 29, lines 60-67). In such a case a "heuristic rule" is applied that if viewers frequently watch the Boston Red Sox then they are statistically likely to be Boston fans (ex. Frequent viewers of a particular team are likely fans of that team). The examiner finds this to be analogous to the example cited by the applicant wherein if an individual watch "Days of our Lives" then they are likely to be a housewife (or "Days of our Lives" fan) (see specification at Fig. 10a). Similarly, a "heuristic rule" as applied in conjunction with the instant application may further suggest that as a result of being a fan of a particular team, that they may statistically likely be interested in watching particular future programs and/or advertisements related to that team not necessarily explicitly reflect in the EPG data (ex. Boston Red Sox fans are likely to be interested in buying Boston Red

Sox products, watching Boston Red Sox advertisements and/or future programming related to the Boston Red Sox) (column 29, lines 60-67, column 30, lines 17-29, column 31, line 25-column 32, line 6 and column 32, lines 24-34).

b. Applicant's arguments in regards to "inferring the number of people in the household" have been considered but are moot in view of the new ground(s) of rejection.

c. In response to applicant's arguments on pages 13 and 14, in regards to the Official Notice taken in regards to utilizing an average as representative of a large range of values, applicant is directed to the previous action wherein utilizing an average value in this regard was entered into the record as fact as applicant had not made any attempt to traverse the Official Notice. Applicant's current traversal is not timely.

### ***Conclusion***

**4. THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the

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shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

5. The following are suggested formats for either a Certificate of Mailing or Certificate of Transmission under 37 CFR 1.8(a). The certification may be included with all correspondence concerning this application or proceeding to establish a date of mailing or transmission under 37 CFR 1.8(a). Proper use of this procedure will result in such communication being considered as timely if the established date is within the required period for reply. The Certificate should be signed by the individual actually depositing or transmitting the correspondence or by an individual who, upon information and belief, expects the correspondence to be mailed or transmitted in the normal course of business by another no later than the date indicated.

### **Certificate of Mailing**

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to:

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Please refer to 37 CFR 1.6(d) and 1.8(a)(2) for filing limitations concerning facsimile transmissions and mailing, respectively.


6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to James Sheleheda whose telephone number is (571) 272-7357. The examiner can normally be reached on 9:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris Kelley can be reached on (571) 272-7331. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

James Sheleheda  
Patent Examiner  
Art Unit 2617

JS



VIVEK SRIVASTAVA  
PRIMARY EXAMINER